CLAIMS AFTER THE AMENDMENTS MADE HEREIN (non-underlined form)

73. (amended) In a data communication network comprising at least a first endpoint coupled to at least a second endpoint, an apparatus for establishing communication between the first endpoint and the second endpoint comprising:

a first endpoint transmitter transmitting a first endpoint protocol signal to the second endpoint, the first endpoint protocol signal indicating a communication protocol, including a format for a data transmission, with which the first endpoint is capable of communicating;

a second endpoint receiver receiving the first endpoint protocol signal;

a second endpoint transmitter transmitting a second endpoint protocol signal to the first endpoint, the second endpoint protocol signal indicating a communication protocol, including a format for a data transmission, with which the second endpoint is capable of communicating;

wherein the communication protocol indicated by the second endpoint protocol signal is different from the communication protocol indicated by the first endpoint protocol signal;

a first endpoint receiver receiving the second endpoint protocol signal;

a first endpoint protocol identifying circuit coupled to the first endpoint receiver identifying the communication protocol indicated by the second endpoint protocol signal from among a plurality of possible communication protocols with which the first endpoint is capable of communicating; and

wherein the first endpoint transmitter includes a communication circuit for communicating with the second endpoint using the communication protocol indicated by the second endpoint protocol signal in response thereto.

74. The apparatus according to claim 73, wherein the first endpoint receiver includes frame receiving circuitry receiving data formatted in a frame structure, and packet receiving circuitry receiving data formatted in a packet structure and wherein the received data formatted in the frame structure and the received data formatted in the packet structure are received over the same receiving communication path, and wherein the first endpoint transmitter includes frame transmitting circuitry transmitting data formatted in the frame structure, and packet transmitting circuitry transmitting data formatted in the packet structure, wherein the data formatted in the frame structure and the data formatted in the packet structure are transmitted over the same transmitting communication path.

75.   The apparatus according to claim 74, wherein the first endpoint protocol signal comprises a signal indicating a protocol corresponding to data formatted in the frame structure, and wherein the second endpoint protocol signal comprises a signal indicating a protocol corresponding to data formatted in the packet structure.

76.   The apparatus according to claim 74, wherein the second endpoint protocol signal indicates an ethernet protocol, and wherein the data formatted in the packet structure is formatted according to the ethernet protocol.

77.   The apparatus according to claim 74, wherein the second endpoint protocol signal indicates a token-ring protocol, and wherein the data formatted in the packet structure is formatted according to the token-ring protocol.

78.   The apparatus according to claim 74, wherein the frame receiving circuitry includes packet converting circuitry converting received data formatted in the frame structure into data formatted in a packet structure.

79.   The apparatus according to claim 78, wherein the second endpoint protocol signal indicates an ethernet protocol, and wherein the data formatted in the packet structure is formatted according to the ethernet protocol.

80.   The apparatus according to claim 78, wherein the second endpoint protocol signal indicates a token-ring protocol, and wherein the data formatted in the packet structure is formatted according to the token-ring protocol.

81.   The apparatus according to claim 73, wherein the first endpoint receiver includes frame receiving circuitry receiving data formatted in a frame structure, and isochronous receiving circuitry receiving data formatted in an isochronous structure, wherein the received data formatted in a frame structure and the received data formatted in the isochronous structure are received over the same receiving communication path, and wherein the first endpoint transmitter includes frame transmitting circuitry transmitting data formatted in a frame structure, and isochronous transmitting circuitry transmitting data formatted in an isochronous structure, wherein the data formatted in the isochronous structure and the data formatted in the frame structure are transmitted over the same transmitting communication path.

82.   The apparatus according to claim 81, wherein the first endpoint protocol signal comprises a signal indicating a protocol corresponding to data formatted in the frame structure,

and wherein the endpoint protocol signal comprises a signal indicating a protocol corresponding to data formatted in the isochronous structure.

83. The apparatus according to claim 81, wherein the second endpoint protocol signal indicates the isochronous protocol, and wherein the data formatted in the isochronous structure is communicated to the second endpoint according to the isochronous protocol.

84. The apparatus according to claim 81, wherein the frame receiving circuitry includes isochronous converting circuitry converting received data formatted in the frame structure into data formatted in the isochronous structure.

85. The apparatus according to claim 84, wherein the second endpoint protocol signal indicates the isochronous protocol, and wherein the converted data formatted in the isochronous structure is communicated to the second endpoint according to the isochronous protocol.

86. The apparatus according to claim 81, wherein the frame receiving circuitry includes packet converting circuitry converting received data formatted in the frame structure into data formatted in the packet structure.

87. An apparatus as set forth in claim 73, wherein the second endpoint transmitter transmits the second endpoint protocol signal responsive to the second endpoint receiver receiving the first endpoint protocol signal.

88. (amended) In a data communication network comprising at least a first endpoint coupled to at least a second endpoint, an apparatus for establishing communication between the first endpoint and the second endpoint comprising:

a first endpoint transmitter transmitting a first endpoint protocol signal to a second endpoint receiver, the first endpoint protocol signal indicating a communication protocol, including a format for a data transmission, with which the first endpoint is capable of communicating;

a second endpoint protocol identifying circuit identifying the communication protocol indicated by the first endpoint protocol signal from among a plurality of possible communication protocols with which the second endpoint is capable of communicating; and

a second endpoint transmitter transmitting a second endpoint protocol signal to the first endpoint indicating that communication between the first endpoint and the second endpoint will take place with the protocol indicated by the first endpoint protocol signal.

89. The apparatus according to claim 88, wherein the second endpoint receiver includes frame receiving circuitry receiving data formatted in a frame structure, and packet receiving circuitry receiving data formatted in a packet structure, wherein the received data formatted in the frame structure and the received data formatted in the packet structure are received over the same receiving communication path, and wherein the second endpoint transmitter includes frame transmitting circuitry transmitting data formatted in the frame structure, and packet transmitting circuitry transmitting data formatted in the packet structure, wherein the data formatted in the frame structure and the data formatted in the packet structure are transmitted over the same transmitting communication path.

90. The apparatus according to claim 89, wherein the first endpoint protocol signal indicates an ethernet protocol, and wherein the data formatted in the packet structure is formatted according to the ethernet protocol.

91. The apparatus according to claim 89, wherein the first endpoint protocol signal indicates a token-ring protocol, and wherein the data formatted in the packet structure is formatted according to the token-ring protocol.

92. The apparatus according to claim 89, wherein the frame receiving circuitry includes packet converting circuitry converting received data formatted in a frame structure into data formatted in a packet structure.

93. The apparatus according to claim 88, wherein the second endpoint receiver includes frame receiving circuitry receiving data formatted in a frame structure, and isochronous receiving circuitry receiving data formatted in an isochronous structure, wherein the received data formatted in the frame structure and the received data formatted in the isochronous structure are received over the same receiving communication path, and wherein the second endpoint transmitter includes frame transmitting circuitry transmitting data formatted in the frame structure, and isochronous transmitting circuitry transmitting data formatted in the isochronous structure, wherein the data formatted in the frame structure and the data formatted in the isochronous structure are transmitted over the same transmitting communication path.

94. The apparatus according to claim 93, wherein the first endpoint protocol signal indicates an isochronous protocol, and wherein the transmitted data formatted in the isochronous structure is communicated to the first endpoint according to the isochronous protocol.

95. The apparatus according to claim 93, wherein the frame receiving circuitry includes isochronous converting circuitry converting received data formatted in the frame structure into data formatted in the isochronous structure.

96. (amended) In a data communication network comprising at least a first endpoint coupled to at least a second endpoint, an apparatus for establishing communication between the first endpoint and a second endpoint comprising:

a first endpoint transmitter transmitting a first endpoint protocol signal to the second endpoint, the first endpoint protocol signal indicating one of a plurality of communication protocols, including a format for a data transmission, with which the first endpoint is capable of communicating;

a second endpoint receiver receiving the first endpoint protocol signal;

a second endpoint protocol identifying circuit identifying the communication protocol indicated by the first endpoint protocol signal from among a plurality of communication protocols with which the second endpoint is capable of communicating;

a second endpoint transmitter transmitting a second endpoint protocol signal to the first endpoint, the second endpoint protocol signal indicating the communication protocol indicated by the first endpoint protocol signal if the communication protocol indicated by the first endpoint protocol signal is a communication protocol, including a format for a data transmission, with which the second endpoint is capable of communicating;

a first endpoint receiver receiving the second endpoint protocol signal;

a first endpoint protocol identifying circuit identifying the communication protocol indicated by the second endpoint protocol signal from among a plurality of communication protocols with which the first endpoint is capable of communicating;

wherein the first endpoint transmitter includes a communication circuit communicating with the second endpoint using the communication protocol indicated by the second endpoint protocol signal.

97. The apparatus according to claim 96, wherein the data communication network comprises a plurality of second endpoints and the data communication network is configured in a star topology.

98. The apparatus according to claim 96, wherein the data communication network comprises a plurality of first endpoints wherein the first endpoints are configured in a ring topology.

99. The apparatus according to claim 96, wherein the data communication network comprises a plurality of second endpoints and wherein the second endpoints are configured in a tree topology.

100. The apparatus according to claim 96, wherein the first endpoint protocol signal comprises a series of 100 nanosecond pulses occurring at nominal 16 millisecond intervals.

101. The apparatus according to claim 96, wherein the first endpoint receiver includes frame receiving circuitry receiving data formatted in a frame structure, and packet receiving circuitry receiving data formatted in a packet structure, wherein the received data formatted in a frame structure and the received data formatted in the packet structure are received over the same receiving communication path, and wherein the first endpoint transmitter includes frame transmitting circuitry transmitting data formatted in a frame structure, and packet transmitting circuitry transmitting data formatted in a packet structure, wherein the transmitted data formatted in the frame structure and the transmitted data formatted in the packet structure are transmitted over the same transmitting communication path.

102. The apparatus according to claim 101, wherein the first endpoint protocol signal comprises a signal indicating a protocol corresponding to data formatted in the frame structure, and wherein the second endpoint protocol signal comprises a signal indicating a protocol corresponding to data formatted in the frame structure.

103. The apparatus according to claim 101, wherein the first endpoint protocol signal indicates an isochronous-ethernet protocol, and wherein the transmitted data formatted in the frame structure is formatted according to the isochronous-ethernet protocol.

104. The apparatus according to claim 101, wherein the first endpoint protocol signal indicates an isochronous-token ring protocol, and wherein the transmitted data formatted in the frame structure is formatted according to the isochronous-token ring protocol.

105. The apparatus according to claim 101, wherein the first endpoint protocol signal indicates an ethernet protocol, and wherein the transmitted data formatted in the packet structure is formatted according to the ethernet protocol.

41

106. The apparatus according to claim 101, wherein the first endpoint protocol signal indicates a token-ring protocol, and wherein the transmitted data formatted in the packet structure is formatted according to the token-ring protocol.

107. The apparatus according to claim 101, wherein the frame receiving circuitry includes packet converting circuitry converting received data formatted in the frame structure into data formatted in the packet structure.

108. The apparatus according to claim 107, wherein the first endpoint protocol signal indicates an ethernet protocol, and wherein the transmitted data formatted in the packet structure is formatted according to the ethernet protocol.

109. The apparatus according to claim 107, wherein the first endpoint protocol signal indicates a token-ring protocol, and wherein the transmitted data formatted in the packet structure is formatted according to the token-ring protocol.

110. The apparatus according to claim 107, wherein the first endpoint protocol signal indicates an isochronous-ethernet protocol, and wherein the transmitted data formatted in the frame structure is formatted according to the isochronous-ethernet protocol.

111. The apparatus according to claim 107, wherein the first endpoint protocol signal indicates an isochronous-token ring protocol, and wherein the transmitted data formatted in the frame structure is formatted according to the isochronous-token ring protocol.

112. The apparatus according to claim 101, wherein the frame receiving circuitry includes isochronous converting circuitry converting received data formatted in a frame structure into data formatted in an isochronous structure.

113. The apparatus according to claim 112, wherein the first endpoint protocol signal indicates an isochronous protocol.

114. An apparatus as set forth in claim 96, wherein the second endpoint transmitter transmits the second endpoint protocol signal responsive to the second endpoint receiver receiving the first endpoint protocol signal.

115. The apparatus according to claim 96, wherein the first endpoint receiver includes frame receiving circuitry receiving data formatted in a frame structure, and isochronous receiving circuitry receiving data formatted in an isochronous structure, wherein the received data formatted in a frame structure and the received data formatted in the isochronous structure are

received over the same receiving communication path, and wherein the first endpoint transmitter includes frame transmitting circuitry transmitting data formatted in a frame structure, and isochronous transmitting circuitry transmitting data formatted in an isochronous structure, wherein the transmitted data formatted in the frame structure and the transmitted data formatted in the isochronous structure are transmitted over the same transmitting communication path.

116.   The apparatus according to claim 115, wherein the first endpoint protocol signal indicates an isochronous protocol.

117.   The apparatus according to claim 115, wherein the first endpoint protocol signal indicates an isochronous-ethernet protocol, and wherein the transmitted data formatted in the frame structure is formatted according to the isochronous-ethernet protocol.

118.   The apparatus according to claim 115, wherein the first endpoint protocol signal indicates an isochronous-token ring protocol, and wherein the transmitted data formatted in the frame structure is formatted according to the isochronous-token ring protocol.

119.   The apparatus according to claim 115, wherein the frame receiving circuitry includes isochronous converting circuitry converting received data formatted in a frame structure into data formatted in an isochronous structure.

120.   The apparatus according to claim 119, wherein the first endpoint protocol signal indicates an isochronous protocol.

121.   The apparatus according to claim 120, wherein the first endpoint protocol signal indicates an isochronous-ethernet protocol, and wherein the transmitted data formatted in the frame structure is formatted according to the isochronous-ethernet protocol.

122.   The apparatus according to claim 119, wherein the first endpoint protocol signal indicates an isochronous-token ring protocol, and wherein the transmitted data formatted in the frame structure is formatted according to the isochronous-token ring protocol.

123.   The apparatus according to claim 119, wherein the frame receiving circuitry includes packet converting circuitry converting received data formatted in a frame structure into data formatted in a packet structure.

124.   The apparatus according to claim 123, wherein the first endpoint protocol signal indicates an ethernet protocol, and wherein the transmitted data formatted in the packet structure is formatted according to the ethernet protocol.

125.   The apparatus according to claim 123, wherein the first endpoint protocol signal indicates a token-ring protocol, and wherein the transmitted data formatted in the packet structure is formatted according to the token-ring protocol.

126.   (amended) The apparatus according to claim 123, wherein the first endpoint protocol signal indicates an isochronous-ethernet protocol, and wherein the transmitted data formatted in the frame structure is formatted according to the isochronous-ethernet protocol.

127.   The apparatus according to claim 123, wherein the first endpoint protocol signal indicates an isochronous-token ring protocol, and wherein the transmitted data formatted in the frame structure is formatted according to the isochronous-token ring protocol.

128.   The apparatus according to claim 123, wherein the first endpoint protocol signal indicates an isochronous protocol.

129.   (amended) In a data communication network comprising at least first and second communication endpoints, an apparatus for establishing communication between the first and second endpoints comprising:

a first endpoint transmitter transmitting a first endpoint protocol signal to the second endpoint, the first endpoint protocol signal indicating a communication protocol, including a format for a data transmission, with which the first endpoint is capable of communicating;

a second endpoint receiver receiving the first endpoint protocol signal;

a second endpoint transmitter transmitting a second endpoint protocol signal to the first endpoint, the second endpoint protocol signal indicating a communication protocol, including a format for a data transmission, with which the second endpoint is capable of communicating;

a first endpoint receiver receiving the second endpoint protocol signal;

a first endpoint protocol identifying circuit identifying the communication protocol indicated by the second endpoint protocol signal from among a plurality of possible communication protocols with which the first endpoint is capable of communicating; and

a first endpoint communication circuit responsive to the first endpoint protocol identifying circuit for communicating with the second endpoint using the communication protocol indicated by the second endpoint protocol signal.

130.   The apparatus according to claim 129, wherein the first endpoint communication circuit includes a first receiver sub-circuit in the first endpoint receiver and a first transmitter sub-

circuit in the first endpoint transmitter for communicating using a first communication protocol and a second receiver sub-circuit in the first endpoint receiver and a second transmitter sub-circuit in the first endpoint transmitter for communicating using a second communication protocol, and wherein the communication circuit communicates with the second endpoint using one of the first receiver and transmitter sub-circuits and the second receiver and transmitter sub-circuits responsive to the second endpoint protocol signal.

131. The apparatus according to claim 130, wherein the first sub-circuit includes frame receiving circuitry receiving data formatted in a frame structure, and the second sub-circuit includes packet receiving circuitry receiving data formatted in a packet structure and wherein the received data formatted in the frame structure and the received data formatted in the packet structure are received over the same receiving communication path, and wherein the first sub-circuit further includes frame transmitting circuitry transmitting data formatted in the frame structure, and the second sub-circuit includes packet transmitting circuitry transmitting data formatted in the packet structure, wherein the data formatted in the frame structure and the data formatted in the packet structure are transmitted over the same transmitting communication path.

132. The apparatus according to claim 131, wherein the first endpoint protocol signal comprises a signal indicating a protocol corresponding to data formatted in the frame structure, and wherein the second endpoint protocol signal comprises a signal indicating a protocol corresponding to data formatted in the packet structure.

133. The apparatus according to claim 131, wherein the second endpoint protocol signal indicates an ethernet protocol, and wherein the data formatted in the packet structure is formatted according to the ethernet protocol.

134. The apparatus according to claim 131, wherein the second endpoint protocol signal indicates a token-ring protocol, and wherein the data formatted in the packet structure is formatted according to the token-ring protocol.

135. The apparatus according to claim 131, wherein the frame receiving circuitry includes packet converting circuitry converting received data formatted in the frame structure into data formatted in the packet structure.

136.   The apparatus according to claim 135, wherein the second endpoint protocol signal indicates an ethernet protocol, and wherein the data formatted in the packet structure is formatted according to the ethernet protocol.

137..   The apparatus according to claim 135, wherein the second endpoint protocol signal indicates a token-ring protocol, and wherein the data formatted in the packet structure is formatted according to the token-ring protocol.

138.   The apparatus according to claim 130, wherein the first sub-circuit includes frame receiving circuitry receiving data formatted in a frame structure, and the second sub-circuit includes isochronous receiving circuitry receiving data formatted in an isochronous structure, wherein the received data formatted in the frame structure and the received data formatted in the isochronous structure are received over the same receiving communication path, and wherein the first sub-circuit further includes frame transmitting circuitry transmitting data formatted in a frame structure, and the second sub-circuit further includes isochronous transmitting circuitry transmitting data formatted in an isochronous structure, wherein the data formatted in the isochronous structure and the data formatted in the frame structure are transmitted over the same transmitting communication path.

139.   The apparatus according to claim 138, wherein the first endpoint protocol signal comprises a signal indicating a protocol corresponding to data formatted in the frame structure, and wherein the second endpoint protocol signal comprises a signal indicating a protocol corresponding to data formatted in the isochronous structure.

140.   The apparatus according to claim 138, wherein the second endpoint protocol signal indicates the isochronous protocol, and wherein the data formatted in the isochronous structure is communicated to the second endpoint according to the isochronous protocol.

141.   The apparatus according to claim 138, wherein the frame receiving circuitry includes isochronous converting circuitry for converting received data formatted in the frame structure into data formatted in the isochronous structure.

142.   The apparatus according to claim 141, wherein the second endpoint protocol signal indicates the isochronous protocol, and wherein the converted data formatted in the isochronous structure is communicated to the second endpoint according to the isochronous protocol.

143. The apparatus according to claim 138, wherein the frame receiving circuitry includes packet converting circuitry for converting received data formatted in the frame structure into data formatted in the packet structure.

144. (amended) In a data communication network comprising at least first and second communication endpoints, an apparatus for establishing communication between the first and second endpoints comprising:

a first endpoint transmitter transmitting a first endpoint protocol signal to the second endpoint, the first endpoint protocol signal indicating a communication protocol, including a format for a data transmission, with which the first endpoint is capable of communicating;

a second endpoint receiver receiving the first endpoint protocol signal;

a second endpoint transmitter transmitting a second endpoint protocol signal, responsive to receipt of the first endpoint protocol signal, to the first endpoint, the second endpoint protocol signal indicating a communication protocol, including a format for a data transmission, with which the second endpoint is capable of communicating;

a first endpoint receiver receiving the second endpoint protocol signal;

a first endpoint protocol identifying circuit identifying the communication protocol indicated by the second endpoint protocol signal from among a plurality of possible communication protocols with which the first endpoint is capable of communicating; and

a first endpoint communication circuit communicating with the second endpoint using the communication protocol indicated by the second endpoint protocol signal.

145. The apparatus of claim 73, wherein the first endpoint and the second endpoint are configured to operate in a best or desired manner.

146. (amended) The apparatus of claim 73, wherein the first endpoint and the second endpoint are coupled together over at least one physical medium.

147. (amended) The apparatus of claim 146, wherein the physical medium comprises one or more physical media selected from the group consisting of twisted pair media, coaxial cable media and fiber optic media.

148. The apparatus of claim 73, wherein the first endpoint and the second endpoint communicate in accordance with a first protocol at a first point in time, wherein the first endpoint

and the second endpoint communicate in accordance with a second protocol at a second point in time.

149.   The apparatus of claim 73, wherein the first endpoint and the second endpoint communicate in accordance with a communication protocol that is determined automatically.

150.   The apparatus of claim 73, wherein data communicated between the first endpoint and the second endpoint include isochronous data.

151.   The apparatus of claim 150, wherein the isochronous data comprises telephone data and/or video data.

152.   The apparatus of claim 88, wherein the first endpoint and the second endpoint are configured to operate in a best or desired manner.

153. (amended) The apparatus of claim 88, wherein the first endpoint and the second endpoint are coupled together over at least one physical medium.

154. (amended) The apparatus of claim 153, wherein the physical medium comprises one or more physical media selected from the group consisting of twisted pair media, coaxial cable media and fiber optic media.

155.   The apparatus of claim 88, wherein the first endpoint and the second endpoint communicate in accordance with a first protocol at a first point in time, wherein the first endpoint and the second endpoint communicate in accordance with a second protocol at a second point in time.

156.   The apparatus of claim 88, wherein the first endpoint and the second endpoint communicate in accordance with a communication protocol that is determined automatically.

157.   The apparatus of claim 88, wherein data communicated between the first endpoint and the second endpoint include isochronous data.

158.   The apparatus of claim 157, wherein the isochronous data comprises telephone data and/or video data.

159.   The apparatus of claim 96, wherein the first endpoint and the second endpoint are configured to operate in a best or desired manner.

160. (amended) The apparatus of claim 96, wherein the first endpoint and the second endpoint are coupled together over at least one physical medium.

161. (amended) The apparatus of claim 160, wherein the physical medium comprises one or more physical media selected from the group consisting of twisted pair media, coaxial cable media and fiber optic media.

162. The apparatus of claim 96, wherein the first endpoint and the second endpoint communicate in accordance with a first protocol at a first point in time, wherein the first endpoint and the second endpoint communicate in accordance with a second protocol at a second point in time.

163. The apparatus of claim 96, wherein the first endpoint and the second endpoint communicate in accordance with a communication protocol that is determined automatically.

164. The apparatus of claim 96, wherein data communicated between the first endpoint and the second endpoint include isochronous data.

165. The apparatus of claim 164, wherein the isochronous data comprises telephone data and/or video data.

166. The apparatus of claim 129, wherein the first endpoint and the second endpoint are configured to operate in a best or desired manner.

167. (amended) The apparatus of claim 129, wherein the first endpoint and the second endpoint are coupled together over at least one physical medium.

168. (amended) The apparatus of claim [166] 167, wherein the physical medium comprises one or more physical media selected from the group consisting of twisted pair media, coaxial cable media and fiber optic media.

169. The apparatus of claim 129, wherein the first endpoint and the second endpoint communicate in accordance with a first protocol at a first point in time, wherein the first endpoint and the second endpoint communicate in accordance with a second protocol at a second point in time.

170. The apparatus of claim 129, wherein the first endpoint and the second endpoint communicate in accordance with a communication protocol that is determined automatically.

171. The apparatus of claim 129, wherein data communicated between the first endpoint and the second endpoint include isochronous data.

172. The apparatus of claim 171, wherein the isochronous data comprises telephone data and/or video data.

49

173. The apparatus of claim 144, wherein the first endpoint and the second endpoint are configured to operate in a best or desired manner.

174. (amended) The apparatus of claim 144, wherein the first endpoint and the second endpoint are coupled together over at least one physical medium.

175. (amended) The apparatus of claim 174, wherein the physical medium comprises one or more physical media selected from the group consisting of twisted pair media, coaxial cable media [or] and fiber optic media.

176. The apparatus of claim 144, wherein the first endpoint and the second endpoint communicate in accordance with a first protocol at a first point in time, wherein the first endpoint and the second endpoint communicate in accordance with a second protocol at a second point in time.

177. The apparatus of claim 144, wherein the first endpoint and the second endpoint communicate in accordance with a communication protocol that is determined automatically.

178. The apparatus of claim 144, wherein data communicated between the first endpoint and the second endpoint include isochronous data.

179. The apparatus of claim 178, wherein the isochronous data comprises telephone data and/or video data.

180. (amended) In a data communication network comprising at least one first endpoint coupled to at least one second endpoint, a method for establishing communication between a first endpoint and a second endpoint comprising the steps of:

transmitting a first endpoint protocol signal from a first endpoint transmitter to the second endpoint, the first endpoint protocol signal indicating a communication protocol, including a format for a data transmission, with which the first endpoint is capable of communicating;

receiving the first endpoint protocol signal with a second endpoint receiver;

transmitting a second endpoint protocol signal from a second endpoint transmitter to the first endpoint, the second endpoint protocol signal indicating a communication protocol, including a format for a data transmission, with which the second endpoint is capable of communicating;

wherein the communication protocol indicated by the second endpoint protocol signal is different from the communication protocol indicated by the first endpoint protocol signal;

receiving the second endpoint protocol signal with a first endpoint receiver;

identifying the communication protocol indicated by the second endpoint protocol signal from among a plurality of possible communication protocols with which the first endpoint is capable of communicating; and

wherein the first endpoint transmitter communicates with the second endpoint using the communication protocol indicated by the second endpoint protocol signal.

181. The method of claim 180, wherein the first endpoint and the second endpoint are configured to operate in a best or desired manner.

182. (amended) The method of claim 180, wherein the first endpoint and the second endpoint are coupled together over at least one physical medium.

183. (amended) The method of claim 182, wherein the physical medium comprises one or more physical media selected from the group consisting of twisted pair media, coaxial cable media and fiber optic media.

184. The method of claim 180, wherein the first endpoint and the second endpoint communicate in accordance with a first protocol at a first point in time, wherein the first endpoint and the second endpoint communicate in accordance with a second protocol at a second point in time.

185. The method of claim 180, wherein the first endpoint and the second endpoint communicate in accordance with a communication protocol that is determined automatically.

186. The method of claim 180, wherein data communicated between the first endpoint and the second endpoint include isochronous data.

187. The method of claim 186, wherein the isochronous data comprises telephone data and/or video data.

188. The method of claim 180, wherein the first endpoint is coupled to a plurality of second endpoints through a plurality of physical media.

189. (amended) The method of claim 188, wherein the physical media comprises one or more physical media selected from the group consisting of twisted pair media, coaxial cable media and fiber optic media.

190. The method of claim 180, further comprising the step of establishing a direct connection between the first endpoint and the second endpoint.

191.   The method of claim 180, wherein the first endpoint and the second endpoint communicate in accordance with one of a plurality of LAN protocols.

192.   (amended) In a data communication network comprising at least one first endpoint coupled to at least one second endpoint, a method for establishing communication between a first endpoint and a second endpoint comprising the steps of:

transmitting a first endpoint protocol signal from a first endpoint transmitter to the second endpoint, the first endpoint protocol signal indicating a communication protocol, including a format for a data transmission, with which the first endpoint is capable of communicating;

identifying the communication protocol indicated by the first endpoint protocol signal from among a plurality of possible communication protocols, including a format for a data transmission, with which the second endpoint is capable of communicating; and

transmitting a second endpoint protocol signal to the first endpoint indicating that communication between the first endpoint and the second endpoint will take place with the protocol indicated by the first endpoint protocol signal.

193.   The method of claim 192, wherein the first endpoint and the second endpoint are configured to operate in a best or desired manner.

194.   (amended) The method of claim 192, wherein the first endpoint and the second endpoint are coupled together over at least one physical medium.

195.   (amended) The method of claim 194, wherein the physical medium comprises one or more physical media selected from the group consisting of twisted pair media, coaxial cable media and fiber optic media.

196.   The method of claim 192, wherein the first endpoint and the second endpoint communicate in accordance with a first protocol at a first point in time, wherein the first endpoint and the second endpoint communicate in accordance with a second protocol at a second point in time.

197.   The method of claim 192, wherein the first endpoint and the second endpoint communicate in accordance with a communication protocol that is determined automatically.

198.   The method of claim 192, wherein data communicated between the first endpoint and the second endpoint include isochronous data.

199.   The method of claim 198, wherein the isochronous data comprises telephone data and/or video data.

200.   The method of claim 192, wherein the first endpoint is coupled to a plurality of second endpoints through a plurality of physical media.

201. (amended) The method of claim 200, wherein the physical media comprises one or more physical media selected from the group consisting of twisted pair media, coaxial cable media and fiber optic media.

202.   The method of claim 192, further comprising the step of establishing a direct connection between the first endpoint and the second endpoint.

203.   The method of claim 192, wherein the first endpoint and the second endpoint communicate in accordance with one of a plurality of LAN protocols.

204. (amended) In a data communication network comprising at least one first endpoint coupled to at least one second endpoint, a method for establishing communication between a first endpoint and a second endpoint comprising the steps of:

transmitting a first endpoint protocol signal from the first endpoint to the second endpoint, the first endpoint protocol signal indicating one of a plurality of communication protocols, including a format for a data transmission, with which the first endpoint is capable of communicating;

receiving the first endpoint protocol signal with a second endpoint receiver;

identifying the communication protocol indicated by the first endpoint protocol signal from among a plurality of communication protocols with which the second endpoint is capable of communicating;

transmitting a second endpoint protocol signal to the first endpoint, the second endpoint protocol signal indicating the communication protocol indicated by the first endpoint protocol signal if the communication protocol indicated by the first endpoint protocol signal is a communication protocol, including a format for a data transmission, with which the second endpoint is capable of communicating;

receiving the second endpoint protocol signal with the first endpoint;

53

identifying the communication protocol indicated by the second endpoint protocol signal from among a plurality of communication protocols with which the first endpoint is capable of communicating;

wherein the first endpoint transmitter communicates with the second endpoint using the communication protocol indicated by the second endpoint protocol signal.

205. The method of claim 204, wherein the first endpoint and the second endpoint are configured to operate in a best or desired manner.

206. (amended) The method of claim 204, wherein the first endpoint and the second endpoint are coupled together over at least one physical medium.

207. (amended) The method of claim 206, wherein the physical medium comprises one or more physical media selected from the group consisting of twisted pair media, coaxial cable media and fiber optic media.

208. The method of claim 204, wherein the first endpoint and the second endpoint communicate in accordance with a first protocol at a first point in time, wherein the first endpoint and the second endpoint communicate in accordance with a second protocol at a second point in time.

209. The method of claim 204, wherein the first endpoint and the second endpoint communicate in accordance with a communication protocol that is determined automatically.

210. The method of claim 204, wherein data communicated between the first endpoint and the second endpoint include isochronous data.

211. The method of claim 210, wherein the isochronous data comprises telephone data and/or video data.

212. The method of claim 204, wherein the first endpoint is coupled to a plurality of second endpoints through a plurality of physical media.

213. (amended) The method of claim 212, wherein the physical media comprises one or more physical media selected from the group consisting of twisted pair media, coaxial cable media and fiber optic media.

214. The method of claim 204, further comprising the step of establishing a direct connection between the first endpoint and the second endpoint.

215. The method of claim 204, wherein the first endpoint and the second endpoint communicate in accordance with one of a plurality of LAN protocols.

216. (amended) In a data communication network comprising at least first and second endpoints, a method for establishing communication between the first and second endpoints comprising the steps of:

transmitting a first endpoint protocol signal from the first endpoint to the second endpoint, the first endpoint protocol signal indicating a communication protocol, including a format for a data transmission, with which the first endpoint is capable of communicating;

receiving the first endpoint protocol signal at the second endpoint;

transmitting a second endpoint protocol signal from the second endpoint to the first endpoint, the second endpoint protocol signal indicating a communication protocol, including a format for a data transmission, with which the second endpoint is capable of communicating;

receiving the second endpoint protocol signal at the first endpoint;

identifying the communication protocol indicated by the second endpoint protocol signal from among a plurality of possible communication protocols with which the first endpoint is capable of communicating; and

communicating between the first endpoint and the second endpoint using the communication protocol indicated by the second endpoint protocol signal.

217. The method of claim 216, wherein the first endpoint and the second endpoint are configured to operate in a best or desired manner.

218. (amended) The method of claim 216, wherein the first endpoint and the second endpoint are coupled together over at least one physical medium.

219. (amended) The method of claim 218, wherein the physical medium comprises one or more physical media selected from the group consisting of twisted pair media, coaxial cable media and fiber optic media.

220. The method of claim 216, wherein the first endpoint and the second endpoint communicate in accordance with a first protocol at a first point in time, wherein the first endpoint and the second endpoint communicate in accordance with a second protocol at a second point in time.

221. The method of claim 216, wherein the first endpoint and the second endpoint communicate in accordance with a communication protocol that is determined automatically.

222. The method of claim 216, wherein data communicated between the first endpoint and the second endpoint include isochronous data.

223. The method of claim 222, wherein the isochronous data comprises telephone data and/or video data.

224. The method of claim 216, wherein the first endpoint is coupled to a plurality of second endpoints through a plurality of physical media.

225. (amended) The method of claim 224, wherein the physical media comprises one or more physical media selected from the group consisting of twisted pair media, coaxial cable media and fiber optic media.

226. The method of claim 216, further comprising the step of establishing a direct connection between the first endpoint and the second endpoint.

227. The method of claim 216, wherein the first endpoint and the second endpoint communicate in accordance with one of a plurality of LAN protocols.

228. (amended) In a data communication network comprising at least first and second endpoints, a method for establishing communication between the first and second endpoints comprising the steps of:

transmitting a first endpoint protocol signal from the first endpoint to the second endpoint, the first endpoint protocol signal indicating a communication protocol, including a format for a data transmission, with which the first endpoint is capable of communicating;

receiving the first endpoint protocol signal at the second endpoint;

transmitting a second endpoint protocol signal, responsive to receipt of the first endpoint protocol signal, from the second endpoint to the first endpoint, the second endpoint protocol signal indicating a communication protocol, including a format for a data transmission, with which the second endpoint is capable of communicating;

receiving the second endpoint protocol signal at the first endpoint;

identifying the communication protocol indicated by the second endpoint protocol signal from among a plurality of possible communication protocols with which the first endpoint is capable of communicating; and

communicating between the first endpoint and the second endpoint using the communication protocol indicated by the second endpoint protocol signal.

229. The method of claim 228, wherein the first endpoint and the second endpoint are configured to operate in a best or desired manner.

230. (amended) The method of claim 228, wherein the first endpoint and the second endpoint are coupled together over at least one physical medium.

231. (amended) The method of claim 230, wherein the physical medium comprises one or more physical media selected from the group consisting of twisted pair media, coaxial cable media and fiber optic media.

232. The method of claim 228, wherein the first endpoint and the second endpoint communicate in accordance with a first protocol at a first point in time, wherein the first endpoint and the second endpoint communicate in accordance with a second protocol at a second point in time.

233. The method of claim 228, wherein the first endpoint and the second endpoint communicate in accordance with a communication protocol that is determined automatically.

234. The method of claim 228, wherein data communicated between the first endpoint and the second endpoint include isochronous data.

235. The method of claim 234, wherein the isochronous data comprises telephone data and/or video data.

236. The method of claim 228, wherein the first endpoint is coupled to a plurality of second endpoints through a plurality of physical media.

237. (amended) The method of claim 236, wherein the physical media comprises one or more physical media selected from the group consisting of twisted pair media, coaxial cable media and fiber optic media.

238. The method of claim 228, further comprising the step of establishing a direct connection between the first endpoint and the second endpoint.

239. The method of claim 228, wherein the first endpoint and the second endpoint communicate in accordance with one of a plurality of LAN protocols.

240. (amended) In a data communication network comprising at least one first endpoint coupled to at least one second endpoint, a method for establishing communication between a first endpoint and a second endpoint comprising the steps of:

transmitting a first endpoint protocol signal from a first endpoint transmitter to the second endpoint, the first endpoint protocol signal indicating a communication protocol, including a format for a data transmission, with which the first endpoint is capable of communicating;

identifying the communication protocol indicated by the first endpoint protocol signal from among a plurality of possible communication protocols with which the second endpoint is capable of communicating;

transmitting a second endpoint protocol signal to the first endpoint indicating that communication between the first endpoint and the second endpoint will take place with the protocol indicated by the first endpoint protocol signal;

the method further comprising the steps of:

transmitting the first endpoint protocol signal from the first endpoint to the second endpoint;

receiving the first endpoint protocol signal with a second endpoint receiver;

· identifying the communication protocol indicated by the first endpoint protocol signal from among the plurality of communication protocols with which the second endpoint is capable of communicating;

transmitting the second endpoint protocol signal to the first endpoint, the second endpoint protocol signal indicating the communication protocol indicated by the first endpoint protocol signal if the communication protocol indicated by the first endpoint protocol signal is a communication protocol, including a format for a data transmission, with which the second endpoint is capable of communicating;

receiving the second endpoint protocol signal with the first endpoint;

identifying the communication protocol indicated by the second endpoint protocol signal from among a plurality of communication protocols with which the first endpoint is capable of communicating;

wherein the first endpoint transmitter communicates with the second endpoint using the communication protocol indicated by the second endpoint protocol signal;

58

the method further comprising the steps of:

transmitting the first endpoint protocol signal from the first endpoint to the second endpoint;

receiving the first endpoint protocol signal at the second endpoint;

transmitting the second endpoint protocol signal from the second endpoint to the first endpoint;

receiving the second endpoint protocol signal at the first endpoint;

identifying the communication protocol indicated by the second endpoint protocol signal from among a plurality of possible communication protocols with which the first endpoint is capable of communicating; and

communicating between the first endpoint and the second endpoint using the communication protocol indicated by the second endpoint protocol signal.